

CUMULATIVE INDEXES

CONTRIBUTING AUTHORS, VOLUMES 61-65

A

Adams, M. E., 63:823-67
Adhya, S., 62:749-95
Affolter, M., 63:487-526
Alberts, B. M., 63:639-74
Anderson, W. F., 62:191-217
Arnheim, N., 61:131-56
Atkins, J. F., 65:741-68

B

Balch, W. E., 63:949-90
Barnes, D. E., 61:251-81
Belfort, M., 62:587-622
Benkovic, S. J., 61:29-54
Bennett, M. K., 63:63-100
Berg, O. G., 64:652-87
Bhatnagar, R. S., 63:869-914
Biemann, K., 61:977-1010
Bjornson, K. P., 65:169-214
Blackburn, E. H., 61:113-29
Blanchard, J. S., 65:215-39
Blau, H., 61:1213-30
Bossonne, S. A., 61:809-60
Bradshaw, R. A., 62:823-50
Bredt, D. S., 63:175-95
Brennan, P. J., 64:29-63
Brun, Y. V., 63:419-50
Brunner, J., 62:483-514
Buc, H., 62:749-95
Burd, C. G., 62:289-321
Bürklin, T., 63:487-526
Burley, S., 65:769-99
Busby, S., 62:749-95
Buxser, S. E., 62:823-50

C

Carreras, C. W., 64:721-62
Carter, C. W. Jr., 62:715-48
Casey, P. J., 65:241-69
Catterall, W. A., 64:493-531
Chaudhary, V., 61:331-54
Ciechanover, A., 61:761-807
Clarke, S. G., 61:355-86
Claus, T. H., 64:799-835
Clipstone, N. A., 63:1045-83
Coleman, J. E., 61:897-946
Conaway, J. W., 62:161-90
Conaway, R. C., 62:161-90
Coux, O., 65:801-47
Coverley, D., 63:745-76
Crabtree, G. R., 63:1045-83

D

Damell, J. E., 64:621-51
Das, A., 62:893-930
Davis, L. I., 64:865-96
Debelle, F., 65:503-35
Dempsey, B., 63:915-48
Denarie, J., 65:503-35
DePamphilis, M. L., 62:29-63
de Vos, A. M., 65:609-34
Devreotes, P. N., 65:411-40
Dixon, J. E., 62:101-20
Dixon, R. A. F., 63:101-32
Donkersloot, J. A., 61:517-57
Doolittle, R. F., 64:287-314
Draper, D. E., 64:593-620
Dreyfuss, G., 62:289-321
Drickamer, K., 65:441-73
Dwek, R. A., 62:65-100

E

Eaton, B. E., 64:837-63
Edge, C. J., 62:65-100
Eggleston, A. K., 63:991-1043
Englund, P. T., 62:121-38
Erickson, J. W., 62:543-85
Erlach, H., 61:131-56

F

Fanning, E., 61:55-85
Fantl, W. J., 62:453-81
Feher, G., 61:861-96
Ferat, J., 64:435-61
Ferrari, M. E., 63:527-70
FitzGerald, D. J., 61:331-54
Fong, T. M., 63:101-32
Ford-Hutchinson, A. W., 63:383-417
Fournier, M. J., 64:897-933
Frank-Kamenetskii, M. D., 64:65-95
Fridovich, I., 64:97-112
Friedberg, E. C., 65:15-42
Fuchs, E., 63:345-82

G

Garges, S., 62:749-95
Gehring, W. J., 63:487-526
Gelb, M. H., 64:652-87
Gennis, R. B., 63:675-716
Gesteland, R. F., 65:741-68

Gierasch, L., 61:387-418
Gold, L., 64:763-97
Goldberg, A. L., 65:801-47
Goliger, J. A., 65:475-502
Goodenough, D. A., 65:475-502
Gordon, J. I., 63:869-914
Gottesman, M. M., 62:385-427
Granner, D. K., 61:1131-73
Gray, H. B., 65:537-61
Greider, C. W., 65:337-65
Gresser, M., 63:383-417
Gudas, L. J., 64:201-33

H

Hanel, A. M., 64:652-87
Hanson, P. I., 61:559-601
Harpel, M. R., 63:197-234
Harrison, L., 63:915-48
Hartl, F.-U., 62:349-84
Hartman, F. C., 63:197-234
Harvey, D. J., 62:65-100
Hayaishi, O., 63:1-24
Heemels, M., 64:463-91
Hendrick, J. P., 62:349-84
Hershko, A., 61:761-807
Herz, J., 63:601-37
Hiraga, S., 61:283-306
Howard, J. B., 63:235-64
Hu, P. Y., 64:375-401

J

Jacobson, A., 65:693-739
Jacger, J. A., 62:255-87
Jain, M. K., 64:652-87
Johnson, D. E., 62:453-81
Johnson, D. R., 63:869-914
Johnson, K. A., 62:685-713
Jones, K. A., 63:717-43
Joyce, C. M., 63:777-822
Jungnickel, B., 65:271-303

K

Kadonaga, J. T., 63:265-97
Kamakaka, R. T., 63:265-97
Katz, R. A., 63:133-73
Keller, W., 61:419-40
Kellogg, D. R., 63:639-74
Kelman, Z., 64:171-200
Kennedy, E. P., 61:1-28
Kennedy, M. B., 63:571-600

Kent, C., 64:315-43
 Kilberg, M. S., 65:305-36
 Kivirikko, K. I., 64:403-34
 Klinman, J. P., 63:299-344
 Knippers, R., 61:55-85
 Knoll, L. J., 63:869-914
 Kodukula, K., 64:563-91
 Kolb, A., 62:749-95
 Kornfeld, S., 61:307-30
 Koshland, D. E., 65:1-13
 Kowalczykowski, S. C., 63:991-1043

Kramer, A., 65:367-409
 Krieger, M., 63:601-37
 Kurjan, J., 61:1097-129
 Kurland, I. J., 64:799-835
 Kutay, U., 65:271-303

L

Lahue, R., 65:101-33
 Lai, M., 64:259-86
 Lambowitz, A. M., 62:587-622
 Lane, M. D., 64:345-73
 Lange, A. J., 64:799-835
 Lanka, E., 64:141-69
 Laskey, R. A., 63:745-76
 Laskey, L. A., 64:113-39
 Law, J. H., 61:87-111
 Levine, A. J., 62:623-51
 Lindahl, T., 61:251-81
 Lohman, T. M., 63:527-70;
 65:169-214
 Lowy, D. R., 62:851-91
 Lucas, P. C., 61:1131-73

M

MacDougald, O. A., 64:345-73
 Majerus, P. W., 61:225-50
 Malandro, M. S., 65:305-36
 Marcu, K. B., 61:809-60
 Marczynski, G., 63:419-50
 Mariani, K. J., 61:673-719
 Massagué, J., 62:515-41
 Matthews, B. W., 62:139-60
 Matthews, C. R., 62:653-83
 Matunis, M. J., 62:289-321
 Maxwell, E. S., 64:897-933
 McEwen, J. E., 65:563-607
 McGarry, J. D., 64:689-719
 Means, A. L., 64:201-33
 Michel, F., 64:435-61
 Miljanich, G. P., 63:823-67
 Mirkin, S. M., 64:65-95
 Mizuuchi, K., 61:1011-51
 Modrich, P., 65:101-33
 Morgan, R. A., 62:191-217
 Moritz, M., 63:639-74
 Mu, D., 63:299-344

N

Newgard, C. B., 64:689-719
 Nikaudo, H., 64:29-63

Norbury, C., 61:441-70
 Nuoffer, C., 63:949-90
 Nurse, P., 61:441-70

O

O'Donnell, M., 64:171-200
 Okamura, M. Y., 61:861-96
 Olivera, B. M., 63:823-67
 O'Malley, B. W., 63:451-86
 Osborne, M. A., 62:219-54

P

Pabo, C. O., 61:1053-95
 Pandiella, A., 62:515-41
 Paranjape, S. M., 63:265-97
 Parekh, R. B., 62:65-100
 Parent, C. A., 65:411-40
 Pastan, I. H., 61:331-54; 62:385-427

Patel, A. J., 61:809-60
 Paul, D. L., 65:475-502
 Peltz, S. W., 65:693-739
 Peterlin, B. M., 63:717-43
 Pieken, W. A., 64:837-63
 Pilgis, S. J., 64:799-835
 Piñol-Roma, S., 62:289-321
 Ploegh, H., 64:463-91
 Polisky, B., 64:763-97
 Poyton, R. O., 65:563-607
 Prockop, D. J., 64:403-34
 Promé, J.-C., 65:503-35
 Pryer, N. K., 61:471-516

R

Raffioni, S., 62:823-50
 Ramachandran, J., 63:823-67
 Rapoport, T. A., 65:271-303
 Ravid, S., 61:721-59
 Rees, D. C., 63:235-64
 Reichard, P., 64:1-28
 Reinberg, D., 64:533-61
 Ribeiro, J. M. C., 61:87-111
 Rizo, J., 61:387-418
 Roeder, R., 65:769-99
 Russell, D. W., 63:25-61

S

Sancar, A., 65:43-81
 SantaLucia, J., 62:255-87
 Santi, D., 64:721-62
 Sauer, R. T., 61:1053-95
 Schekman, R., 61:471-516
 Scheller, R. H., 63:63-100
 Schindler, C., 64:621-51
 Schleif, R., 61:199-223
 Schulman, H., 61:559-601
 Schutgens, R. B. H., 61:157-97
 Shapiro, L., 63:419-50
 Sheetz, M. P., 62:429-51
 Silver, P. A., 62:219-54
 Sipe, J. D., 61:947-75
 Skalka, A. M., 63:133-73

Sly, W., 64:375-401
 Snell, E. E., 62:1-27
 Snyder, S. H., 63:175-95
 Spudich, J. A., 61:721-59
 Stadman, E. R., 62:797-821
 Stadman, T., 65:83-100
 Steitz, T. A., 63:777-822
 Strader, C. D., 63:101-32
 Symons, R. H., 61:641-71

T

Tager, J. M., 61:157-97
 Tall, A., 64:235-57
 Tan, J. L., 61:721-59
 Tanaka, K., 65:801-47
 Thompson, J., 61:517-57
 Tinoco, I. Jr., 62:255-87
 Tota, M. R., 63:101-32
 Trumpower, B. L., 63:675-716
 Tsai, M.-J., 63:451-86

U

Udenfriend, S., 64:563-91
 Uhlenbeck, O., 64:763-97
 Underwood, D., 63:101-32

V

van den Bosch, H., 61:157-97

W

Wahle, E., 61:419-40
 Walker, R. A., 62:429-51
 Wallace, D., 61:1175-212
 Walton, K. M., 62:101-20
 Wanders, R. J. A., 61:157-97
 Wang, J. C., 65:635-92
 Warren, G., 62:323-48
 Weber, K., 63:345-82
 Weis, W. I., 65:441-73
 Wells, J. A., 65:609-34
 Wells, M., 61:87-111
 West, S. C., 61:603-40
 Wilkins, B. M., 64:141-69
 Williams, L. T., 62:453-81
 Willumsen, B. M., 62:851-91
 Wilson, J. D., 63:25-61
 Winkler, J. R., 65:537-61
 Wlodawer, A., 62:543-85
 Wood, R. D., 65:135-67
 Wormald, M. R., 62:65-100
 Wuestehube, L., 61:471-516

Y

Yarus, M., 64:763-97
 Young, R. N., 63:383-417

Z

Zawel, L., 64:533-61
 Zhang, F. L., 65:241-69

CHAPTER TITLES, VOLUMES 61-65

PREFATORY

Sailing to Byzantium	E. P. Kennedy	61:1-28
From Bacterial Nutrition to Enzyme Structure: A Personal Odyssey	E. E. Snell	62:1-27
Tryptophan, Oxygen, and Sleep	O. Hayaishi	63:1-24
To Be There When the Picture Is Painted	P. Reichard	64:1-28
How to Get Paid for Having Fun	D. E. Koshland, Jr.	65:1-13

AMINO ACIDS

N-(Carboxyalkyl) Amino Acids: Occurrence, Synthesis, and Functions	J. Thompson, J. A. Donkersloot	61:517-57
From Bacterial Nutrition to Enzyme Structure: A Personal Odyssey	E. E. Snell	62:1-27
Oxidation of Free Amino Acids and Amino Acid Residues in Proteins by Radiolysis and by Metal-Catalyzed Reactions	E. R. Stadtman	62:797-821
Nitric Oxide: A Physiologic Messenger Molecule	D. S. Bredt, S. H. Snyder	63:175-95
Selenocysteine	T. C. Stadtman	65:83-100
Molecular Biology of Mammalian Amino Acid Transporters	M. S. Malandro, M. S. Kilberg	65:305-36

BIOENERGETICS (See also Contractile Proteins, Membranes, and Transport)

Control of Nonmuscle Myosins by Phosphorylation	J. L. Tan, S. Ravid, J. A. Spudich	61:721-59
Proton Transfer in Reaction Centers from Photosynthetic Bacteria	M. Y. Okamura, G. Feher	61:861-96
Diseases of the Mitochondrial DNA	D. C. Wallace	61:1175- 212
Energy Transduction by Cytochrome Complexes in Mitochondrial and Bacterial Respiration: The Enzymology of Coupling Electron Transfer Reactions to Transmembrane Proton Translocation	B. L. Trumpower, R. B. Gennis	63:675-716
Electron Transfer in Proteins	H. B. Gray, J. R. Winkler	65:537-61
Crosstalk Between Nuclear and Mitochondrial Genomes	R. O. Poyton, J. E. McEwen	65:563-607

CANCER (See Disease, Biochemistry of)

CARBOHYDRATES

Analysis of Glycoprotein-Associated Oligosaccharides	R. A. Dwek, C. J. Edge, D. J. Harvey, M. R. Wormald, R. B. Parekh	62:65-100
Selectin-Carbohydrate Interactions and the Initiation of the Inflammatory Response	L. A. Lasky	64:113-39
Structural Basis of Lectin-Carbohydrate Recognition	W. I. Weis, K. Drickamer	65:441-73

CELL ORGANELLES

Biochemistry of Peroxisomes	H. van den Bosch, R. B. H. Schutgens, R. J. A. Wanders, J. M. Tager	61:157-97
-----------------------------	---	-----------

Structure and Function of the Mannose 6-Phosphate/Insulinlike Growth Factor II Receptors	S. Kornfeld	61:307-30
Vesicle-Mediated Protein Sorting	N. K. Pryer, L. J. Wuestehube, R. Schekman	61:471-516
Diseases of the Mitochondrial DNA	D. C. Wallace	61:1175-212
Nucleocytoplasmic Transport in the Yeast <i>Saccharomyces cerevisiae</i>	M. A. Osborne, P. A. Silver	62:219-54
Membrane Partitioning During Cell Division	G. Warren	62:323-48
Cytoplasmic Microtubule-Associated Motors	R. A. Walker, M. P. Sheetz	62:429-51
The Centrosome and Cellular Organization	D. R. Kellogg, M. Moritz, B. M. Alberts	63:639-74
GTPases: Multifunctional Molecular Switches	C. Nuoffer, W. E. Balch	63:949-90
Regulating Vesicular Traffic	L. I. Davis	64:865-96
The Nuclear Pore Complex	T. A. Rapoport, B. Jungnickel, U. Kutay	65:271-303
Protein Transport Across the Eukaryotic Endoplasmic Reticulum and Bacterial Inner Membranes	D. A. Goodenough, J. A. Goliger, D. L. Paul	65:475-502
Connexins, Connexons, and Intercellular Communication		
CELL WALLS		
Chromosome and Plasmid Partition in <i>Escherichia coli</i>	S. Hiraga	61:283-306
The Envelope of Mycobacteria	P. J. Brennan, H. Nikaido	64:29-63
DEVELOPMENT AND DIFFERENTIATION		
Structure and Function of the Mannose 6-Phosphate/Insulinlike Growth Factor II Receptors	S. Kornfeld	61:307-30
Animal Cell Cycles and Their Control	C. Norbury, P. Nurse	61:441-70
Pheromone Response in Yeast	J. Kurjan	61:1097-129
Diseases of the Mitochondrial DNA	D. C. Wallace	61:1175-212
Differentiation Requires Continuous Active Control	H. M. Blau	61:1213-30
Human Gene Therapy	R. A. Morgan, W. F. Anderson	62:191-217
Membrane-Anchored Growth Factors	J. Massagué, A. Pandiella	62:515-41
Intermediate Filaments: Structure, Dynamics, Function, and Disease	E. Fuchs, K. Weber	63:345-82
The Expression of Asymmetry During Caulobacter Cell Differentiation	Y. V. Brun, G. Marczyński, L. Shapiro	63:419-50
Homeodomain Proteins	W. J. Gehring, M. Affolter, T. Bürglin	63:487-526
Signal Transmission between the Plasma Membrane and Nucleus of T Lymphocytes	G. R. Crabtree, N. A. Clipstone	63:1045-83
The Roles of Retinoids in Vertebrate Development	A. L. Means, L. J. Gudas	64:201-33
Rhizobium Lipo-Chitoooligosaccharide Nodulation Factors: Signaling Molecules Mediating Recognition and Morphogenesis	J. Dénarié, F. Debellé, J.-C. Promé	65:503-35
DISEASE, BIOCHEMISTRY OF		
Mammalian DNA Ligases	T. Lindahl, D. E. Barnes	61:251-81
Amyloidosis	J. D. Sipe	61:947-75
Diseases of the Mitochondrial DNA	D. C. Wallace	61:1175-212
Human Gene Therapy	R. A. Morgan, W. F. Anderson	62:191-217

The Tumor Suppressor Genes	A. J. Levine	62:623-51
Steroid 5 α -Reductase: Two Genes/Two Enzymes	D. W. Russell, J. D. Wilson	63:25-61
The Retroviral Enzymes	R. A. Katz, A. M. Skalka	63:133-73
Control of RNA Initiation and Elongation at the HIV-1 Promoter	K. A. Jones, B. M. Peterlin	63:717-43
Plasma Lipid Transfer Proteins	A. Tall	64:235-57
Human Carbonic Anhydrases and Carbonic Anhydrase Deficiencies	W. Sly, P. Y. Hu	64:375-401
Mismatch Repair in Replication Fidelity, Genetic Recombination, and Cancer Biology	P. Modrich, R. Lahue	65:101-33

DNA

General

Polymerase Chain Reaction Strategy	N. Arnheim, H. Erlich	61:131-56
DNA Looping	R. Schleif	61:199-223
Chromosome and Plasmid Partition in <i>Escherichia coli</i>	S. Hiraga	61:283-306
Transcription Factors: Structural Families and Principles of DNA Recognition	C. O. Pabo, R. T. Sauer	61:1053-95
Function and Regulation of Ras	D. R. Lowy, B. M. Willumsen	62:851-91
Role of Chromatin Structure in the Regulation of Transcription by RNA Polymerase II	S. M. Paranjape, R. T. Kamakaka, J. T. Kadonaga	63:265-97

Recombination

Mammalian DNA Ligases	T. Lindahl, D. E. Barnes	61:251-81
Enzymes and Molecular Mechanisms of Genetic Recombination	S. C. West	61:603-40
Transpositional Recombination: Mechanistic Insights from Studies of Mu and Other Elements	K. Mizuuchi	61:1011-51
Diseases of the Mitochondrial DNA	D. C. Wallace	61:1175-212
Human Gene Therapy	R. A. Morgan, W. F. Anderson	62:191-217
Introns as Mobile Genetic Elements	A. M. Lambowitz, M. Belfort	62:587-622
<i>Escherichia coli</i> Single-Stranded DNA-Binding Protein: Multiple DNA-Binding Modes and Cooperativities	T. M. Lohman, M. E. Ferrari	63:527-70
Repair of Oxidative Damage to DNA: Enzymology and Biology	B. Dimple, L. Harrison	63:915-48
Homologous Pairing and DNA Strand-Exchange Proteins	S. C. Kowalczykowski, A. K. Eggleston	63:991-1043
DNA Processing Reactions in Bacterial Conjugation	E. Lanka, B. M. Wilkins	64:141-69

Repair

Mammalian DNA Ligases	T. Lindahl, D. E. Barnes	61:251-81
<i>Escherichia coli</i> Single-Stranded DNA-Binding Protein: Multiple DNA-Binding Modes and Cooperativities	T. M. Lohman, M. E. Ferrari	63:527-70
Function and Structure Relationships in DNA Polymerases	C. M. Joyce, T. A. Steitz	63:777-822
Repair of Oxidative Damage to DNA: Enzymology and Biology	B. Dimple, L. Harrison	63:915-48
Relationships Between DNA Repair and Transcription	E. C. Friedberg	65:15-42
DNA Excision Repair	A. Sancar	65:43-81
DNA Repair in Eukaryotes	R. D. Wood	65:135-67

Replication

- Structure and Function of Simian Virus 40
 Large Tumor Antigen E. Fanning, R. Knippers 61:55-85
 Telomerases E. H. Blackburn 61:113-29
 Mammalian DNA Ligases T. Lindahl, D. E. Barnes 61:251-81
 Chromosome and Plasmid Partition in
Escherichia coli S. Hiraga 61:283-306
 Prokaryotic DNA Replication K. J. Mariani 61:673-719
 Zinc Proteins: Enzymes, Storage Proteins,
 Transcription Factors, and Replication
 Proteins J. E. Coleman 61:897-946
 Eukaryotic DNA Replication: Anatomy of an
 Origin M. L. DePamphilis 62:29-63
 Conformational Coupling in DNA Polymerase
 Fidelity K. A. Johnson 62:685-713
Escherichia coli Single-Stranded DNA-Binding
 Protein: Multiple DNA-Binding Modes and
 Cooperativities T. M. Lohman, M. E. Ferrari 63:527-70
 The Centrosome and Cellular Organization D. R. Kellogg, M. Moritz, B. M. Alberts 63:639-74
 Regulation of Eukaryotic DNA Replication D. Coverley, R. A. Laskey 63:745-76
 Function and Structure Relationships in DNA
 Polymerases C. M. Joyce, T. A. Steitz 63:777-822
 DNA Polymerase III Holoenzyme: Structure
 and Function of a Chromosomal Replicating
 Machine Z. Kelman, M. O'Donnell 64:171-200
 Mechanisms of Helicase-Catalyzed DNA
 Unwinding T. M. Lohman, K. P. Bjornson 65:169-214
 DNA Topoisomerases J. C. Wang 65:635-92

Structure

- Telomerases E. H. Blackburn 61:113-29
 Transcriptional Regulation by cAMP and its
 Receptor Protein A. Kolb, S. Busby, H. Buc, S. Gargus, S. Adhya 62:749-95
 Homologous Pairing and DNA
 Strand-Exchange Proteins S. C. Kowalczykowski, A. K. Eggleston 63:991-1043
 Triplex DNA Structures M. D. Frank-Kamenetskii, S. M. Mirkin 64:65-95
 Telomere Length Regulation C. W. Greider 65:337-65

DRUGS, ANTIBIOTICS, AND ANTIMETABOLITES

- Biochemistry of Multidrug Resistance Mediated
 by the Multidrug Transporter M. M. Gottesman, I. Pastan 62:385-427
 Molecular Mechanisms of Drug Resistance in
Mycobacterium Tuberculosis J. S. Blanchard 65:215-39

ENZYMES**Mechanisms and Kinetics**

- Catalytic Antibodies S. J. Benkovic 61:29-54
 Protein Tyrosine Phosphatases K. M. Walton, J. E. Dixon 62:101-20
 Structure-Based Inhibitors of HIV-1 Protease A. Wlodawer, J. W. Erickson 62:543-85
 Conformational Coupling in DNA Polymerase
 Fidelity K. A. Johnson 62:685-713
 Structure, Function, Regulation, and Assembly
 of D-Ribulose-1,5-Bisphosphate
 Carboxylase/Oxygenase F. C. Hartman, M. R. Harpel 63:197-234
 5-Lipoxygenase A. W. Ford-Hutchinson, M. Gresser, R. N. Young 63:383-417

Function and Structure Relationships in DNA Polymerases	C. M. Joyce, T. A. Steitz	63:777-822
The Catalytic Mechanism and Structure of Thymidylate Synthase	C. W. Carreras, D. Santi	64:721-62
Protein Prenylation: Molecular Mechanisms and Functional Consequences	F. L. Zhang, P. J. Casey	65:241-69
<i>Regulation</i>		
Structure, Function, Regulation, and Assembly of D-Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase	F. C. Hartman, M. R. Harpel	63:197-234
<i>Specific Enzymes and Classes</i>		
Telomerases	E. H. Blackburn	61:113-29
Inositol Phosphate Biochemistry	P. W. Majerus	61:225-50
Mammalian DNA Ligases	T. Lindahl, D. E. Barnes	61:251-81
Protein Isoprenylation and Methylation at Carboxy-Terminal Cysteine Residues	S. Clarke	61:355-86
Enzymes and Molecular Mechanisms of Genetic Recombination	S. C. West	61:603-40
Zinc Proteins: Enzymes, Storage Proteins, Transcription Factors, and Replication Proteins	J. E. Coleman	61:897-946
Analysis of Glycoprotein-Associated Oligosaccharides	R. A. Dwek, C. J. Edge, D. J. Harvey, M. R. Wormald, R. B. Parekh	62:65-100
Conformational Coupling in DNA Polymerase Fidelity	K. A. Johnson	62:685-713
Cognition, Mechanism, and Evolutionary Relationships in Aminoacyl-tRNA Synthetases	C. W. Carter Jr.	62:715-48
Steroid 5 α -Reductase: Two Genes/Two Enzymes	D. W. Russell, J. D. Wilson	63:25-61
The Retroviral Enzymes	R. A. Katz, A. M. Skalka	63:133-73
Nitric Oxide: A Physiologic Messenger Molecule	D. S. Bredt, S. H. Snyder	63:175-95
Quinonozymes in Biology	J. P. Klinman, D. Mu	63:299-344
GTPases: Multifunctional Molecular Switches Regulating Vesicular Traffic	C. Nuoffer, W. E. Balch	63:949-90
Superoxide Radical and Superoxide Dismutases	I. Fridovich	64:97-112
Interfacial Enzymology of Glycerolipid Hydrolases: Lessons from Secreted Phospholipases A2	M. M. H. Gelb, M. K. Jain, A. M. Hanel, O. G. Berg	64:652-87
6-Phosphofructo-2-Kinase/Fructose-2,6-Bisphosphate: A Metabolic Signaling Enzyme	S. J. Pilkis, T. H. Claus, I. J. Kurland, A. J. Lange	64:799-835
<i>Structure (Protein)</i>		
From Bacterial Nutrition to Enzyme Structure: A Personal Odyssey	E. E. Snell	62:1-27
Signaling by Receptor Tyrosine Kinases	W. J. Fantl, D. E. Johnson, L. T. Williams	62:453-81
Structure-Based Inhibitors of HIV-1 Protease	A. Wlodawer, J. W. Erickson	62:543-85
Nitrogenase: A Nucleotide-Dependent Molecular Switch	J. B. Howard, D. C. Rees	63:235-64
Function and Structure Relationships in DNA Polymerases	C. M. Joyce, T. A. Steitz	63:777-822
How Glycosylphosphatidylinositol-Anchored Membrane Proteins Are Made	S. Udenfriend, K. Kodukula	64:563-91
Biochemistry and Structural Biology of Transcription Factor IID (TFIID)	S. K. Burley, R. G. Roeder	65:769-99
Structure and Functions of the 20S and 26S Proteasomes	O. Coux, K. Tanaka, A. L. Goldberg	65:801-47

GENES AND BIOCHEMICAL GENETICS (See also DNA and RNA)

Polymerase Chain Reaction Strategy	N. Arnheim, H. Erlich	61:131-56
Animal Cell Cycles and Their Control	C. Norbury, P. Nurse	61:441-70
Enzymes and Molecular Mechanisms of Genetic Recombination	S. C. West	61:603-40
<i>myc</i> Function and Regulation	K. B. Marcu, S. A. Bossone, A. J. Patel	61:809-60
Transcription Factors: Structural Families and Principles of DNA Recognition	C. O. Pabo, R. T. Sauer	61:1053-95
Hormone Response Domains in Gene Transcription	P. C. Lucas, D. K. Granner	61:1131-73
Diseases of the Mitochondrial DNA	D. C. Wallace	61:1175-212
Human Gene Therapy	R. A. Morgan, W. F. Anderson	62:191-217
The Tumor Suppressor Genes	A. J. Levine	62:623-51
Transcriptional Regulation by cAMP and its Receptor Protein	A. Kolb, S. Busby, H. Buc, S. Garges, S. Adhya	62:749-95
Control of Transcription Termination by RNA-Binding Proteins	A. Das	62:893-930
Steroid 5 α -Reductase: Two Genes/Two Enzymes	D. W. Russell, J. D. Wilson	63:25-61
The Expression of Asymmetry During Caulobacter Cell Differentiation	Y. V. Brun, G. Marczynski, L. Shapiro	63:419-50
Control of RNA Initiation and Elongation at the HIV-1 Promoter	K. A. Jones, B. M. Peterlin	63:717-43
Regulation of Eukaryotic DNA Replication	D. Coverley, R. A. Laskey	63:745-76

HORMONES

Biochemical Insights Derived from Insect Diversity	J. H. Law, J. M. C. Ribeiro, M. A. Wells	61:87-111
Pheromone Response in Yeast	J. Kurjan	61:1097-129
Hormone Response Domains in Gene Transcription	P. C. Lucas, D. K. Granner	61:1131-73
Steroid 5 α -Reductase: Two Genes/Two Enzymes	D. W. Russell, J. D. Wilson	63:25-61
Molecular Mechanisms of Action of Steroid/Thyroid Receptor Superfamily Members	M.-J. Tsai, B. W. O'Malley	63:451-86
Generation, Translocation, and Presentation of MHC Class I-Restricted Peptides	M. Heemels, H. Ploegh	64:463-91
Transcriptional Responses to Polypeptide Ligands: The JAK-STAT Pathway	C. Schindler, J. E. Darnell	64:621-51
Hematopoietic Receptor Complexes	J. A. Wells, A. M. de Vos	65:609-34

IMMUNOBIOCHEMISTRY

Signal Transmission between the Plasma Membrane and Nucleus of T Lymphocytes	G. R. Crabtree, N. A. Clipstone	63:1045-83
--	---------------------------------	------------

LIPIDS

Inositol Phosphate Biochemistry	P. W. Majerus	61:225-50
Structures and Functions of Multiligand Lipoprotein Receptors: Macrophage Scavenger Receptors and LDL Receptor-Related Proteins (LRP)	M. Krieger, J. Herz	63:601-37
Genetic and Biochemical Studies of Protein N-Myristoylation	D. R. Johnson, R. S. Bhatnagar, L. J. Knoll, J. I. Gordon	63:869-914
Eukaryotic Phospholipid Biosynthesis	C. Kent	64:315-43

MEMBRANES

- Inositol Phosphate Biochemistry P. W. Majerus 61:225-50
- Chromosome and Plasmid Partition in
Escherichia coli S. Hiraga 61:283-306
- Structure and Function of the Mannose
6-Phosphate/Insulinlike Growth Factor II
Receptors S. Kornfeld 61:307-30
- Protein Isoprenylation and Methylation at
Carboxy-Terminal Cysteine Residues S. Clarke 61:355-86
- Vesicle-Mediated Protein Sorting N. K. Pryer, L. J. Wuestehube, R.
Schekman 61:471-516
- Neuronal Ca^{2+} /Calmodulin-Dependent Protein
Kinases P. I. Hanson, H. Schulman 61:559-601
- The Structure and Biosynthesis of Glycosyl
Phosphatidylinositol Protein Anchors P. T. Englund 62:121-38
- Membrane Partitioning During Cell Division G. Warren 62:323-48
- Signaling by Receptor Tyrosine Kinases W. J. Fantl, D. E. Johnson, L. T.
Williams 62:453-81
- Membrane-Anchored Growth Factors J. Massagué, A. Pandiella 62:515-41
- The Receptors for Nerve Growth Factor and
Other Neurotrophins S. Raffioni, R. A. Bradshaw, S. E.
Buxser 62:823-50
- Genetic and Biochemical Studies of Protein
N-Myristoylation D. R. Johnson, R. S. Bhatnagar, L. J.
Knoll, J. I. Gordon 63:869-914
- GTPases: Multifunctional Molecular Switches
Regulating Vesicular Traffic C. Nuoffer, W. E. Balch 63:949-90

METABOLISM

- Diseases of the Mitochondrial DNA D. C. Wallace 61:1175-
212
- From Bacterial Nutrition to Enzyme Structure:
A Personal Odyssey E. E. Snell 62:1-27
- Transcriptional Regulation of Gene Expression
During Adipocyte Differentiation O. A. MacDougald, D. Lane 64:345-73
- Metabolic Coupling Factors in Pancreatic
Beta-Cell Signal Transduction C. B. Newgard, J. D. McGarry 64:689-719

METHODOLOGY

- Polymerase Chain Reaction Strategy N. Arnheim, H. Erlich 61:131-56
- Mass Spectrometry of Peptides and Proteins K. Biemann 61:977-
1010
- New Photolabeling and Crosslinking Methods J. Brunner 62:483-514

MUSCLE AND CONTRACTILE PROTEINS

- Neuronal Ca^{2+} /Calmodulin-Dependent Protein
Kinases P. I. Hanson, H. Schulman 61:559-601
- Control of Nonmuscle Myosins by
Phosphorylation J. L. Tan, S. Ravid, J. A. Spudich 61:721-59

NUCLEOTIDES, NUCLEOSIDES, PURINES, AND PYRIMIDINES

- Repair of Oxidative Damage to DNA:
Enzymology and Biology B. Dimple, L. Harrison 63:915-48

NEUROBIOLOGY AND NEUROCHEMISTRY

- Neuronal Ca^{2+} /Calmodulin-Dependent Protein
Kinases P. I. Hanson, H. Schulman 61:559-601
- Diseases of the Mitochondrial DNA D. C. Wallace 61:1175-
212
- The Receptors for Nerve Growth Factor and
Other Neurotrophins S. Raffioni, R. A. Bradshaw, S. E.
Buxser 62:823-50

922 CHAPTER TITLES

A Molecular Description of Synaptic Vesicle Membrane Trafficking	M. K. Bennett, R. H. Scheller	63:63-100
Nitric Oxide: A Physiologic Messenger Molecule	D. S. Bredt, S. H. Snyder	63:175-95
The Biochemistry of Synaptic Regulation in the Central Nervous System	M. B. Kennedy	63:571-600
Calcium Channel Diversity and Neurotransmitter Release: The ω -Conotoxins and ω -Agatoxins	B. M. Olivera, G. P. Miljanich, J. Ramachandran, M. E. Adams	63:823-67
NITROGEN FIXATION		
Nitrogenase: A Nucleotide-Dependent Molecular Switch	J. B. Howard, D. C. Rees	63:235-64
NUTRITION (See Vitamins, Growth Factors, and Essential Metabolites)		
PEPTIDES		
Constrained Peptides: Models of Bioactive Peptides and Protein Substructures	J. Rizo, L. M. Gierasch	61:387-418
Mass Spectrometry of Peptides and Proteins	K. Biemann	61:977-1010
PHOTOBIOLOGY AND PHOTOSYNTHESIS (See also Bioenergetics)		
Proton Transfer in Reaction Centers from Photosynthetic Bacteria	M. Y. Okamura, G. Feher	61:861-96
Repair of Oxidative Damage to DNA: Enzymology and Biology	B. Dimple, L. Harrison	63:915-48
PROTEINS		
<i>Binding and Transport Proteins</i>		
Molecular Chaperone Functions of Heat-Shock Proteins	J. P. Hendrick, F.-U. Hartl	62:349-84
Biochemistry of Multidrug Resistance Mediated by the Multidrug Transporter	M. M. Gottesman, I. Pastan	62:385-427
The Receptors for Nerve Growth Factor and Other Neurotrophins	S. Raffioni, R. A. Bradshaw, S. E. Buxser	62:823-50
Function and Regulation of Ras	D. R. Lowy, B. M. Willumsen	62:851-91
Structure and Function of Voltage-Gated Ion Channels	W. A. Catterall	64:493-531
<i>Biosynthesis</i>		
The Biochemistry of 3'-End Cleavage and Polyadenylation of Messenger RNA Precursors	E. Wahle, W. Keller	61:419-40
Cognition, Mechanism, and Evolutionary Relationships in Aminoacyl-tRNA Synthetases	C. W. Carter Jr.	62:715-48
<i>Contractile Proteins</i>		
Cytoplasmic Microtubule-Associated Motors	R. A. Walker, M. P. Sheetz	62:429-51
<i>Post-Translational Modification</i>		
Protein Isoprenylation and Methylation at Carboxy-Terminal Cysteine Residues	S. Clarke	61:355-86
Vesicle-Mediated Protein Sorting	N. K. Pryer, L. J. Wuestehube, R. Schekman	61:471-516
The Ubiquitin System for Protein Degradation	A. Hershko, A. Ciechanover	61:761-807
Protein Tyrosine Phosphatases	K. M. Walton, J. E. Dixon	62:101-20
Oxidation of Free Amino Acids and Amino Acid Residues in Proteins by Radiolysis and by Metal-Catalyzed Reactions	E. R. Stadtman	62:797-821

Genetic and Biochemical Studies of Protein N-Myristoylation	D. R. Johnson, R. S. Bhatnagar, L. J. Knoll, J. I. Gordon	63:869-914
<i>Special Classes</i>		
Catalytic Antibodies	S. J. Benkovic	61:29-54
Inositol Phosphate Biochemistry	P. W. Majerus	61:225-50
Structure and Function of the Mannose 6-Phosphate/Insulinlike Growth Factor II Receptors	S. Kornfeld	61:307-30
Neuronal Ca^{2+} /Calmodulin-Dependent Protein Kinases	P. I. Hanson, H. Schulman	61:559-601
Control of Nonmuscle Myosins by Phosphorylation	J. L. Tan, S. Ravid, J. A. Spudich	61:721-59
Zinc Proteins: Enzymes, Storage Proteins, Transcription Factors, and Replication Proteins	J. E. Coleman J. D. Sipe	61:897-946 61:947-75
Amyloidosis	C. O. Pabo, R. T. Sauer	61:1053-95
Transcription Factors: Structural Families and Principles of DNA Recognition	R. A. Dwek, C. J. Edge, D. J. Harvey, M. R. Wormald, R. B. Parekh	62:65-100
Analysis of Glycoprotein-Associated Oligosaccharides	G. Dreyfuss, M. J. Matunis, S. Piñol-Roma, C. G. Burd	62:289-321
hnRNP Proteins and the Biogenesis of mRNA	W. J. Fantl, D. E. Johnson, L. T. Williams	62:453-81
Signalling by Receptor Tyrosine Kinases	A. Das	62:893-930
Control of Transcription Termination by RNA-Binding Proteins	Y. V. Brun, G. Marczyński, L. Shapiro	63:419-50
The Expression of Asymmetry During Caulobacter Cell Differentiation	W. J. Gehring, M. Affolter, T. Bürglin	63:487-526
Homeodomain Proteins	T. M. Lohman, M. E. Ferrari	63:527-70
<i>Escherichia coli</i> Single-Stranded DNA-Binding Protein: Multiple DNA-Binding Modes and Cooperativities	M. Krieger, J. Herz	63:601-37
Structures and Functions of Multiligand Lipoprotein Receptors: Macrophage Scavenger Receptors and LDL Receptor-Related Proteins (LRP)	D. R. Johnson, R. S. Bhatnagar, L. J. Knoll, J. I. Gordon	63:869-914
Genetic and Biochemical Studies of Protein N-Myristoylation	S. C. Kowalczykowski, A. K. Eggleston	63:991-1043
Homologous Pairing and DNA Strand-Exchange Proteins	D. J. Prockop, K. I. Kivirikko	64:403-34
Collagens: Molecular Biology, Diseases, and Potentials for Therapy		
<i>Structure</i>		
The Structure and Biosynthesis of Glycosyl Phosphatidylinositol Protein Anchors	P. T. Englund	62:121-38
Structural and Genetic Analysis of Protein Stability	B. W. Matthews	62:139-60
Determination of RNA Structure and Thermodynamics	J. A. Jaeger, J. SantaLucia Jr., I. Tinoco Jr.	62:255-87
hnRNP Proteins and the Biogenesis of mRNA	G. Dreyfuss, M. J. Matunis, S. Piñol-Roma, C. G. Burd	62:289-321
Pathways of Protein Folding	C. R. Matthews	62:653-83
Cognition, Mechanism, and Evolutionary Relationships in Aminoacyl-tRNA Synthetases	C. W. Carter Jr.	62:715-48

Function and Structure Relationships in DNA Polymerases	C. M. Joyce, T. A. Steitz	63:777-822
The Multiplicity of Domains in Proteins	R. F. Doolittle	64:287-314
RECEPTORS		
Protein Isoprenylation and Methylation at Carboxy-Terminal Cysteine Residues	S. Clarke	61:355-86
Pheromone Response in Yeast	J. Kurjan	61:1097-129
Signaling by Receptor Tyrosine Kinases	W. J. Fantl, D. E. Johnson, L. T. Williams	62:453-81
Membrane-Anchored Growth Factors	J. Massagué, A. Pandiella	62:515-41
Transcriptional Regulation by cAMP and its Receptor Protein	A. Kolb, S. Busby, H. Buc, S. Garges, S. Adhya	62:749-95
The Receptors for Nerve Growth Factor and Other Neurotrophins	S. Raffioni, R. A. Bradshaw, S. E. Buxser	62:823-50
Structure and Function of G Protein-Coupled Receptors	C. D. Strader, T. M. Fong, M. R. Tota, D. Underwood, R. A. F. Dixon	63:101-32
Nitric Oxide: A Physiologic Messenger Molecule	D. S. Bredt, S. H. Snyder	63:175-95
Molecular Mechanisms of Action of Steroid/Thyroid Receptor Superfamily Members	M.-J. Tsai, B. W. O'Malley	63:451-86
Structures and Functions of Multiligand Lipoprotein Receptors: Macrophage Scavenger Receptors and LDL Receptor-Related Proteins (LRP)	M. Krieger, J. Herz	63:601-37
Genetic and Biochemical Studies of Protein N-Myristoylation	D. R. Johnson, R. S. Bhatnagar, L. J. Knoll, J. I. Gordon	63:869-914
Molecular Genetics of Signal Transduction in <i>Dictyostelium</i>	C. A. Parent, P. N. Devreotes	65:411-40
RNA		
Small Catalytic RNAs	R. H. Symons	61:641-71
Hormone Response Domains in Gene Transcription	P. C. Lucas, D. K. Granner	61:1131-73
General Initiation Factors for RNA Polymerase II	R. C. Conaway, J. W. Conaway	62:161-90
Introns as Mobile Genetic Elements	A. M. Lambowitz, M. Belfort	62:587-622
Transcriptional Regulation by cAMP and its Receptor Protein	A. Kolb, S. Busby, H. Buc, S. Garges, S. Adhya	62:749-95
Control of Transcription Termination by RNA-Binding Proteins	A. Das	62:893-930
The Retroviral Enzymes	R. A. Katz, A. M. Skalka	63:133-73
Role of Chromatin Structure in the Regulation of Transcription by RNA Polymerase II	S. M. Paranpalle, R. T. Kamakaka, J. T. Kadonaga	63:265-97
Molecular Mechanisms of Action of Steroid/Thyroid Receptor Superfamily Members	M.-J. Tsai, B. W. O'Malley	63:451-86
Control of RNA Initiation and Elongation at the HIV-1 Promoter	K. A. Jones, B. M. Peterlin	63:717-43
Common Themes in Assembly and Function of Eukaryotic Transcription Complexes	D. Reinberg, L. Zawel	64:533-61
Diversity of Oligonucleotide Functions	L. Gold, B. Polisky, O. Uhlenbeck, M. Yarus	64:763-97
Structure and Activities of Group II Introns	F. Michel, J. Ferat	64:435-61

Protein-RNA Recognition	D. E. Draper	64:593-620
Ribonucleosides and RNA	B. E. Eaton, W. A. Pieken	64:837-63
The Small Nuclear RNAs	E. S. Maxwell, M.J. Fournier	64:897-933
The Structure and Function of Proteins		
Involved in Mammalian Pre-mRNA Splicing	A. Krämer	65:367-409
Interrelationships of the Pathways of mRNA		
Decay and Translation	A. Jacobson, S. W. Peltz	65:693-739
Recoding: Dynamic Reprogramming of Translation	R. F. Gesteland, J. F. Atkins	65:741-68
TOXINS AND TOXIC AGENTS		
Recombinant Toxins as Novel Therapeutic Agents	I. Pastan, V. Chaudhary, D. J. FitzGerald	61:331-54
Calcium Channel Diversity and Neurotransmitter Release: The ω -Conotoxins and ω -Agatoxins	B. M. Olivera, G. P. Miljanich, J. Ramachandran, M. E. Adams	63:823-67
Repair of Oxidative Damage to DNA: Enzymology and Biology	B. Demple, L. Harrison	63:915-48
TRANSPORT		
Biochemistry of Multidrug Resistance Mediated by the Multidrug Transporter	M. M. Gottesman, I. Pastan	62:385-427
VIRUSES AND BACTERIOPHAGES		
Structure and Function of Simian Virus 40		
Large Tumor Antigen	E. Fanning, R. Knippers	61:55-85
Human Gene Therapy	R. A. Morgan, W. F. Anderson	62:191-217
Function and Regulation of RAS	D. R. Lowy, B. M. Willumsen	62:851-91
The Retroviral Enzymes	R. A. Katz, A. M. Skalka	63:133-73
Control of RNA Initiation and Elongation at the HIV-1 Promoter	K. A. Jones, B. M. Peterlin	63:717-43
The Molecular Biology of Hepatitis Delta Virus	M. Lai	64:259-86
VITAMINS, GROWTH FACTORS, AND ESSENTIAL METABOLITES		
Zinc Proteins: Enzymes, Storage Proteins, Transcription Factors, and Replication Proteins	J. E. Coleman	61:897-946
From Bacterial Nutrition to Enzyme Structure: A Personal Odyssey	E. E. Snell	62:1-27
Membrane-Anchored Growth Factors	J. Massagué, A. Pandiella	62:515-41
Function and Regulation of RAS	D. R. Lowy, B. M. Willumsen	62:851-91